

REMARKS

I. Introduction

Claims 1-22 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 1-21 Under 35 USC §102(e)

Claims 1-21 were rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,501,984 (“Church et al.”). Applicants respectfully submit that Church et al. do not anticipate the present claims for the following reasons.

Claim 1 relates to a system for performing electrical impedance tomography. Claim 1 recites that the system includes a first set of electrodes positioned in a first plane and a second set of electrodes positioned in a second plane. Claim 1 has been amended herein without prejudice to recite that the second plane being different from the first plane. Support for this amendment can be found, for instance, in Figure 1, which clearly illustrates sets of electrodes 14a in current injection planes 16a and 16b which are different planes relative to each other. Claim 1 also recites that the system includes a third set of electrodes positioned in a third plane between the first and second planes, wherein the third set of electrodes is rotatable around an axis intersecting the third plane.

It is respectfully submitted that Church et al. do not anticipate the present claims for at least the reason that Church et al. fail to disclose, or even suggest, all of the claimed features of each claim. For instance, it is respectfully submitted that Church et al. fail to disclose, or even suggest, a first set of electrodes positioned in a first plane and a second set of electrodes positioned in a second plane, the second plane being different from the first plane, and a third set of electrodes positioned in a third plane between the first and second planes as recited in claim 1. The present application states at page 7, lines 10-17, of the Specification that its arrangement “provides a system and method for generating a three-dimensional electrical impedance tomography image, whereby a single set of electrodes, e.g., the third set of electrodes 14c, is moveable between the first and second current injecting planes 14a, 14b . . . [t]hus, the system of the present invention decreases the number of electrodes that are required to be employed in the space between the first and second current injecting planes 14a, 14b, thereby improving the accuracy of the measurements taken and the resolution of the three-dimensional image generated therefrom.”

In contrast, Church et al. disclose an arrangement in which the electrodes are positioned in a single plane. Figures 3 and 4 clearly illustrate that electrode sets (recording electrodes R and stimulating electrodes S) are arranged in the same plane. Church et al. state that “[t]he electrode array 22 shown in FIGS. 2 and 3 differs from that shown in FIG. 1 in that it comprises two groups of electrodes arranged in an annular configuration, i.e. in two rings, one within the other, and supported by an annular support.” Col. 5, lines 44-48 (emphasis added). Thus, there is no disclosure or suggestion whatsoever in Church et al. of a third set of electrodes, nor that the third set of electrodes is positioned between sets of electrodes positioned in first and second planes that are different from each other.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that Church et al. do not disclose, or even suggest, all of the features recited in claim 1.

As for claims 2-21, which ultimately depend from and include all of the limitations of claim 1, it is respectfully submitted that Church et al. do not anticipate these dependent claims for at least the same reasons given above in support of the patentability of claim 1.

III. Rejection of Claim 22 Under 35 U.S.C. § 103(a)

Claim 22 was rejected under 35 U.S.C. § 103(a) as unpatentable over Church et al. in view of U.S. Patent Publication No. 2004/0097806 (“Hunter et al.”). Applicants respectfully submit that the combination of Church et al. and Hunter et al. do not render obvious the present claims for the following reasons.

It is respectfully submitted that the combination of Church et al. and Hunter et al. does not disclose, or even suggest, all of the limitations recited in claim 22. For instance, claim 22 depends indirectly from claim 1, and therefore includes all of the limitations of this claim. As stated above, it is respectfully submitted that Church et al. fail to disclose, or even suggest, a first set of electrodes positioned in a first plane and a second set of electrodes positioned in a second plane, the second plane being different from the first plane, and a third set of electrodes positioned in a third plane between the first and second planes as recited in claim 1. Hunter et al. are not relied upon to disclose or suggest, and in fact do not disclose or suggest, the limitations of claim 1 that are not disclosed or suggested by Church et al. For instance, Hunter et al. purport to describe an image guided catheter navigation system for tracking and displaying an image of a catheter within a patient, that does not provide an

arrangement of electrodes in which a first set of electrodes is positioned in a first plane and a second set of electrodes is positioned in a second plane, the second plane being different from the first plane, and a third set of electrodes is positioned in a third plane between the first and second planes.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Thus, for claim 22, which depends from and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Church et al. and Hunter et al. does not render obvious this dependent claim for at least the same reasons given above in support of the patentability of claim 1. In re Fine, supra (any claim that depends from a non-obvious independent claim is non-obvious).

IV. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

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Respectfully submitted,

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